

July 13, 2009



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 14505
(SECOND REVISION)

EXPIRATION DATE: June 30, 2013

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Arkema, Incorporated
Philadelphia, Pennsylvania
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the use of DOT specification 105J500W tank cars having a maximum gross weight on rail of 286,000 pounds for the transportation in commerce of certain refrigerant gases. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
 - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.203(a) in that marking the special permit number on the shipping paper is waived and § 179.13 in that tank cars manufactured under this special permit may not exceed 263,000 pounds gross weight on rail, except as specified herein.

5. BASIS: This special permit is based on the application of Arkema, Inc., dated June 30, 2009, submitted accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Difluoromethane or Refrigerant gas R 32	2.1	UN 3252	N/A
Liquefied Gas, n.o.s.	2.2	UN 3163	N/A
Pentafluoroethane or Refrigerant gas R 125	2.2	UN 3220	N/A
Refrigerant gas R 404A	2.2	UN 3337	N/A
Refrigerant gas R 407C	2.2	UN 3340	N/A
Refrigerant gases, n.o.s.	2.2	UN 1078	N/A
1,1,1,2-tetrafluoroethane or Refrigerant gas R 134a	2.2	UN 3159	N/A
1,1,1-trifluoroethane or Refrigerant gas R 143a	2.1	UN 2035	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING -

- (1) Packaging prescribed is a specification DOT 112J500W tank car constructed in accordance with Certificate of Construction Number L076026B dated June 6, 2007 on file with the Office of Hazardous Materials Special Permits and Approvals.

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- (2) The tank car must conform to the Association of American Railroads= Manual of Standards and Recommended Practices, Manual C-II, Specifications S-286 and C-III, Section 2.5, except that the cars built under this special permit are not permitted in free interchange.
- (3) Each car built under this special permit must be designed and constructed to meet the following requirements:

Feature:	Detail:
Puncture Resistance	Tank heads and shells manufactured from AAR TC128, Grade B, normalized steel, with a minimum thickness of 0.7874 inches. Each plate-as-rolled must be Charpy V-notch impact tested longitudinal to the direction of rolling at -50° Fahrenheit in accordance with ASTM E23. Transverse and longitudinal refer to the direction of the long axis of the test specimen. The test coupons must simulate the in-service condition of the material and must meet the minimum requirement of 15 ft-lb average for three specimens, with no single value below 10 ft-lb and no two below 15 ft-lb at the reference temperature.
Full-Head Protection	Tank head protection system complying with § 179.16.
Structural Integrity	Stub-sill designed and constructed to a fatigue life in excess of one million miles at 286,000 pounds GWR, calculated by applying an overall load factor of 1.09 to those designs approved for GWR at 263,000 pounds.

Trackworthiness	Variable-dampened type trucks, in compliance with AAR M-976 for 286,000 pounds GWR: Barber S-2-HD or ASF Motion Control are deemed compliant.
Pressure Relief Device	Re-closing pressure relief device designed and tested in accordance with § 179.15.
Service Equipment Protection	Top fittings protection designed to Trinity specifications submitted with the special permit application and complying with Association of American Railroads Manual of Standards and Recommended Practices, Manual C-III, Appendix E, Paragraph 10.2.

(2) Each tank car may be loaded to a maximum gross weight on rail of 286,000 pounds, provided that the tank is not loaded in excess of the amount authorized per §§ 174.24b or 173.314.

b. MARKING- Each tank car operating under the terms of this special permit must be marked "DOT-SP 14505" in four-inch letters and numerals on a contrasting background above the DOT Specification number.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modification or change is made to the package and it is offered for transportation in conformance with this special permit and the HMR.

b. Cars built under this special permit may not move in free interchange. Prior to any initial loading of any tank car under the terms of this special permit, the applicant must secure written, signed agreements among and between the carriers involved in each route and must file those written, signed agreements with the Federal Railroad Administration at the address shown in Paragraph 10 hereof prior to the first offering on each route. These written, signed agreements are intended to memorialize only that the route

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is: (a) capable of supporting a railroad tank car of 286K GRL; and (b) that each railroad, in fact, agrees to move such cars over the specified route. The written, signed agreements should not contain any other financial or operational information deemed confidential by grantee, a user of the car(s), or the railroad(s) involved in an agreed route.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation, except that a copy is not required at locations that offer residue only.

d. Owners of the tank cars authorized under this special permit must develop a program of maintenance and qualification and must make such programs available for inspection by FRA. Any such program must identify areas of inspection for fatigue, corrosion, wear, etc., have a "life cycle" maintenance plan, and include a demonstration of reliability and sensitivity. This program must identify inspection items, inspection methods, acceptance criteria, and inspection frequencies and must have written procedures that ensure that work performed on cars conforms to Federal requirements. Prior to the first use of a tank car under the terms of this special permit the grantee shall file with FRA, at the address shown in Paragraph 10, a signed acknowledgement of the program of maintenance.

e. The additional information requirement for shipping papers in § 172.203(a) is waived.

9. MODES OF TRANSPORTATION AUTHORIZED: Rail freight.

10. MODAL REQUIREMENTS: The applicant must notify the Federal Railroad Administration of any unusual incident or incidents known to it that occur during the movement of cars built under this special permit. FRA may be contacted at:

Federal Railroad Administration
Hazardous Materials Division
RRS-12/Mail Stop 25
1200 New Jersey Avenue, SE
Washington, DC 20590
ATTN: William S. Schoonover, Staff Director
202-493-6229, FAX: 202-493-6478

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR ' ' 171.15 B Immediate notice of certain hazardous materials incidents, and 171.16 B Detailed hazardous

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materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

A handwritten signature in blue ink that reads "Diane LaValle". The signature is written in a cursive style.

for Theodore L. Willke
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: TP/AM